

Riverside South Development Corporation

Environmental Noise Impact Assessment RSS Town Center Block 2

**2604 Jessie Chenvert Walk,
Riverside South**

June 2026

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1 Introduction

Arcadis Professional Services (Canada) Inc. (formerly IBI Group) has been retained by Urbandale Corporation to provide professional engineering services for the proposed residential development located at 2604 Jessie Chenevert Walk. The subject site is approximately 0.8 ha and consists of 2-storey and 3-storey stacked condo blocks adding up to a total of 67 units. Refer to key plan on **Figure 1.1** for Site location.

Figure 1.1 Site Location



The proposed site is located near the South-East intersection of Earl Armstrong Road and Portico Way. This site forms part of Block 1 of the Riverside South Town Center Phase 7A project that spans between Portico Way to the west, Limebank Road to the east, Earl Armstrong Road to the north, and the future BRT corridor to the south. The site itself is bounded by Flavescent Street to the east, Earl Armstrong Road to the north, Jessie Chenevert Walk to the south, and Extendicare Riverside to the west. Vehicle access to the site will be provided from Portico Way and Jessie Chenevert Walk. Pedestrian access is provided from Jessie Chenevert Walk.

2 Background

2.1 Noise Sources

The study area is primarily subject to roadway noise from Earl Armstrong Road to the north and Jessie Chenvert Walk to the south. There are no other existing or proposed arterial roads, collector roads or bus rapid transit corridors located within 100 meters of the site.

Aircraft noise from the Ottawa International Airport impacts the site as it is included in the Airport Vicinity Development Zone (AVDZ). There are no rail lines within 500 meters of the site.

2.2 Sound Level limits for Road Traffic

Sound level criteria for road traffic is referenced from the City of Ottawa Environmental Noise Control Guidelines (ENC) Guidelines published in January 2016 and the *Ministry of the Environment Publication NPC-300 (August 2013)*, hereafter referred to as NPC-300. Noise levels are expressed in the form Leq (T) which refers to a weighted level of a steady sound carrying the same total energy in the time period T (in hours) as the observed fluctuation sound.

2.2.1 Indoor Sound Level Criterion

For 'noise-sensitive' land uses, the sound level limits for Indoor Living Areas from Table 2.2b (NPC-300, Table C-2) of the ENC Guidelines are as follows:

- Nighttime – sleeping quarters – 23:00 to 07:00 – 40 dBA Leq (8)
- Daytime – living areas, den areas, hospitals, nursing homes (excludes schools or daycares) – 07:00 to 23:00 – 45 dBA Leq (16)

The sound levels are based on the windows and doors to an indoor space being closed.

Based on preliminary density information for the proposed subdivision, it is assumed that buildings heights in high-density blocks (i.e. south of the transit corridor and Block 2) will not exceed 25 storeys and therefore the daytime and nighttime noise is assessed at 76.5 metres above the ground. The remaining property parcels created through this Draft Plan are expected to conform to the City's standard definition of 'medium density' and be a maximum of 9 storeys. As such, the daytime and nighttime receptor locations for these blocks will be evaluated at 28.5 metres above the ground.

As per NPC-300 C7.1.2.1 and C7.1.2.2, when the outdoor noise levels at the plane of the window are greater than 55 dBA and less than or equal to 65 dBA (daytime) and/or greater than 50 dBA and less than or equal to 60 dBA (nighttime), then a warning clause is required along with forced air heating and a provision for central air conditioning.

Should the outdoor noise levels exceed 65 dBA at the living room and/or exceed 60 dBA at the bedroom, then central air conditioning is mandatory and a warning clause is required.

2.2.2 Outdoor Sound Level Criterion

As per Table 2.2a of NPC-300, the sound level criteria for the outdoor living area (OLA) during the daytime period between 07:00 and 23:00 hours is 55 dBA Leq (16). Sound levels for the OLA are typically calculated 3 metres from the building face at the centre of the façade or within the centre of the OLA at a height of 1.5 metres above the ground.

If the Leq sound level is less than or equal to the above criteria, then no further action is required by the proponent. If the sound level exceeds the criteria by less than 5 dBA then the proponent may, with City approval, either provide a warning clause to prospective purchasers/tenants or install physical attenuation. For sound levels greater than 5 dBA above the criteria control measures are required to reduce the noise levels as close to 55 dBA as technically, economically and administratively possible. Should the sound levels with the barrier in place exceed 55 dBA, a warning clause is also required.

2.2.3 Indoor Sound Level Criterion – Building Components

As per NPC-300 C7.1.3, when the outdoor sound levels are less than or equal to 65 dBA at the 'daytime' window and/or less than or equal to 60 dBA at the 'nighttime' window, then the building must be compliant with the Ontario Building Code. Should the outdoor sound levels exceed this criteria, then the building component (walls, windows etc.) must be designed to achieve indoor sound level criteria.

2.1 Sound Level Limits for Aircraft Noise

Aircraft noise impact assessment is based on the Noise Exposure Forecast (NEF) and Noise Exposure Projection (NEP) methods approved by Transport Canada. The noise contours were used to define the Airport Operating Influence Zone (AOIZ) and Airport Vicinity Development Zone (AVDZ), as indicated on Schedule C-14 of the 2022 Official Plan.

No new noise sensitive developments are permitted within the AOIZ. Noise sensitive development is permitted within the AVDZ and outside of the AOIZ subject to a noise study or under the Prescribed Measures for Aircraft Noise in Part 6 of the ENC Guidelines, while indoor and outdoor sound level limits for aircraft noise are included in Table 4.2a.

3 Roadway Noise

3.1 Road & Rail Traffic Data

The major sources of traffic noise impacting the site is the traffic moving along Earl Armstrong Road and Jessie Chenvert Walk.

The section of Earl Armstrong Road adjacent to the site is currently a four lane urban divided arterial road with a posted speed limit of 80 km/hr. Jessie Chenvert Way is a recently constructed two lane urban collector roadway, the posted speed limit is expected to be 40 km/hr as it is assumed that facilities within the Riverside South Town Centre will be designed as Complete Streets and that posted speeds will not exceed 40km/h. Traffic volume parameters are taken from Table B1 in Appendix B of the guidelines with Earl Armstrong Road as a 4-UAD roadway and Jessie Chenvert Way as a 2-UCU road. Table 3.1 summarizes the traffic and road parameters are used to assess the noise levels.

Table 3-1 – Traffic and Road Data Summary

Parameter	Earl Armstrong Road (4-UAD)	Jessie Chenvert Walk (2-UCU)
Annual Average Daily Traffic (AADT)	35,000	8,000
Posted Speed Limit (km/h)	80	40
% Medium Trucks	7%	7%
% Heavy Trucks	5%	5%
% Daytime Traffic	92%	92%

3.2 Calculation Methods

Roadway noise was calculated using the STAMSON 5.04 computer program from the Ontario Ministry of the Environment (MOE), the results of the which are included in **Appendix B**.

Numerous locations are used to calculate the sound levels at the building face to determine indoor sound levels. There is a Communal Amenity Space identified on the site plan south of the accessory building that is considered an outdoor living area (OLA). Unattenuated daytime and nighttime noise levels at the building face (for determining indoor sound levels) at each of the selected locations are shown in **Table 3.2**, while unattenuated daytime noise levels at the outdoor living areas (OLA) are presented in **Table 3.3**.

Parameters used for calculating the noise levels, including the perpendicular distance from source to receiver and the roadway segment angle are also included in the tables. Locations of the indoor and outdoor noise receptors used in the calculations are shown on the **Noise Plan Drawing No. N** and were selected to determine the limits of the noise criteria

Table 3-2 – Unattenuated Noise Levels at Building Face (Indoor)

LOCATION	ROADWAY	SOURCE RECEIVER DISTANCE (M)	NOISE ANGLES		DAYTIME NOISE (dBA)	NIGHT NOISE (dBA)
			LEFT	RIGHT		
A1	Jessie Chenvert	16.5	90	90	61.81	54.61
A2	Jessie Chenvert	76.0	0	90	58.22	52.41
	Earl Armstrong	93.0	-90	-10		
A3	Jessie Chenvert	58.0	0	90	55.42	49.35
	Earl Armstrong	107.5	-30	0		
B1	Earl Armstrong	27.5	-90	90	70.34	63.54
B2	Earl Armstrong	40.0	-90	-10	63.90	57.44
B3	Earl Armstrong	86.5	-70	0	58.85	52.82
	Jessie Chenvert	80.0	0	45		

As indicated in **Table 3.2** above, noise levels exceed the 55 dBA (daytime) or 50 dBA (nighttime) threshold at numerous locations and therefore abatement measures will be reviewed for the impacted dwelling units.

Table 3-3 – Unattenuated Noise Levels at OLA

LOCATION	ROADWAY	SOURCE RECEIVER DISTANCE (M)	NOISE ANGLES		DAYTIME NOISE (dBA)
			LEFT	RIGHT	
C1	Jessie Chenvert	47.5	-90	75	54.14

As indicated in **Table 3.2** above the noise level does not exceed the 55 dBA limit.

4 Results

4.1 Indoor Sound Levels

As identified in Table 3.2 dwelling units directly fronting Earl Armstrong Road experience noise levels exceeding the 65 dBA (daytime) or 60 dBA (nighttime) thresholds. As such, these units will require a Type 'D' warning clause in the Agreement of Purchase and Sale for mandatory central air conditioning and a review of building components.

For all other units in Building 'A' north and south the daytime noise level is less than 65 dBA but exceeds 55 dBA and nighttime noise level is less than 60 dBA but exceeds 50 dBA, an alternative means of ventilation is required as well as a Type 'C' warning clause in the Agreement of Purchase and Sale. Alternative means of ventilation usually consist of a forced air heating system with ducts sized for future installation of central air conditioning.

4.2 Outdoor Sound Levels

As identified in Table 3.3 the daytime noise level at the center of the Outdoor Living Area is below 55 dBA so that no further action is required.

4.3 Aircraft Noise

Given that the site is entirely located within the Airport Vicinity Development Zone (ADVZ), the following warning clause will apply to Indoor or Outdoor Living Areas which conform to the City's criteria for 'noise-sensitive' land uses, as prescribed in the ENC Guidelines.

The standard warning clause for aircraft noise is as follows:

"Purchasers/tenants are advised that due to the proximity of the Ottawa Macdonald-Cartier International Airport, noise from the airport and individual aircraft may at times interfere with indoor or outdoor activities".

5 Summary of Attenuation Measures

Warning Clauses

A noise warning clause must appear on the Agreement of Purchase and Sale of the single-family and townhouse units indicated on **Noise Plan Drawing No:**

Type 'D' All units in Building B and all units in Building A north fronting Earl Armstrong

Type 'C' All units in Building A north and south not fronting Earl Armstrong

The following warning clauses are taken from Section C8.1 of the NPC-300 Guidelines.

Type 'C'	"This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."
Type 'D'	"This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

The aircraft warning clause was provided previously in Section 4.3.

Ventilation Requirements and Building Components

All single-family or townhouse units requiring a Type 'C' warning clause listed in Section 5.1 should be fitted with a forced air heating system, sized to accommodate a central air conditioning system. Any dwelling units requiring a Type 'D' warning clause should have central air conditioning installed, as well as an acoustical review of building components.

Appendix

STAMSON Output Reports

STAMSON 5.0 NORMAL REPORT Date: 29-06-2026 11:01:16
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: alin.te Time Period: Day/Night 16/8 hours
Description: A1 indoor

Road data, segment # 1: Jessie Chen (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 40 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Jessie Chen (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 16.50 / 16.50 m
Receiver height : 1.50 / 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Jessie Chen (day)

Source height = 1.50 m

ROAD (0.00 + 61.81 + 0.00) = 61.81 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	63.96	0.00	-0.69	-1.46	0.00	0.00	0.00	61.81

Segment Leq : 61.81 dBA

Total Leq All Segments: 61.81 dBA

Results segment # 1: Jessie Chen (night)

Source height = 1.50 m

ROAD (0.00 + 54.61 + 0.00) = 54.61 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.48	56.36	0.00	-0.61	-1.14	0.00	0.00	0.00	54.61

Segment Leq : 54.61 dBA

Total Leq All Segments: 54.61 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 61.81
(NIGHT): 54.61

STAMSON 5.0 NORMAL REPORT Date: 29-06-2026 11:32:10
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: blin.te Time Period: Day/Night 16/8 hours
Description: A2 indoor

Road data, segment # 1: Earl Armston (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Earl Armston (day/night)

Angle1 Angle2 : -90.00 deg -10.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 93.00 / 93.00 m
Receiver height : 1.50 / 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: Jessie Chen (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 40 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Jessie Chen (day/night)

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-----
Angle1   Angle2           :    0.00 deg    90.00 deg
Wood depth           :          0      (No woods.)
No of house rows     :          0 / 0
Surface              :          1      (Absorptive ground surface)
Receiver source distance : 76.00 / 76.00 m
Receiver height       :    1.50 / 7.50 m
Topography           :          1      (Flat/gentle slope; no barrier)
Reference angle       :    0.00
  
```

Results segment # 1: Earl Armston (day)

Source height = 1.50 m

ROAD (0.00 + 57.81 + 0.00) = 57.81 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-10	0.66	76.17	0.00	-13.15	-5.20	0.00	0.00	0.00	57.81

Segment Leq : 57.81 dBA

Results segment # 2: Jessie Chen (day)

Source height = 1.50 m

ROAD (0.00 + 47.79 + 0.00) = 47.79 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.66	63.96	0.00	-11.70	-4.47	0.00	0.00	0.00	47.79

Segment Leq : 47.79 dBA

Total Leq All Segments: 58.22 dBA

Results segment # 1: Earl Armston (night)

Source height = 1.50 m

ROAD (0.00 + 52.02 + 0.00) = 52.02 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-10	0.48	68.57	0.00	-11.73	-4.82	0.00	0.00	0.00	52.02

Segment Leq : 52.02 dBA

Results segment # 2: Jessie Chen (night)

Source height = 1.50 m

ROAD (0.00 + 41.78 + 0.00) = 41.78 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.48	56.36	0.00	-10.43	-4.15	0.00	0.00	0.00	41.78

Segment Leq : 41.78 dBA

Total Leq All Segments: 52.41 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.22
(NIGHT): 52.41

STAMSON 5.0 NORMAL REPORT Date: 29-06-2026 11:39:38
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: blin.te Time Period: Day/Night 16/8 hours
Description: A3 indoor

Road data, segment # 1: Earl Armston (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Earl Armston (day/night)

Angle1 Angle2 : -30.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 107.50 / 107.50 m
Receiver height : 1.50 / 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: Jessie Chen (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 40 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Jessie Chen (day/night)

```

-----
Angle1   Angle2           : -90.00 deg   0.00 deg
Wood depth           :           0       (No woods.)
No of house rows     :           0 / 0
Surface              :           1       (Absorptive ground surface)
Receiver source distance : 58.00 / 58.00 m
Receiver height       :    1.50 / 7.50 m
Topography           :           1       (Flat/gentle slope; no barrier)
Reference angle       :    0.00
  
```

Results segment # 1: Earl Armston (day)

Source height = 1.50 m

ROAD (0.00 + 54.05 + 0.00) = 54.05 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-30	0	0.66	76.17	0.00	-14.20	-7.91	0.00	0.00	0.00	54.05

Segment Leq : 54.05 dBA

Results segment # 2: Jessie Chen (day)

Source height = 1.50 m

ROAD (0.00 + 49.74 + 0.00) = 49.74 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.66	63.96	0.00	-9.75	-4.47	0.00	0.00	0.00	49.74

Segment Leq : 49.74 dBA

Total Leq All Segments: 55.42 dBA

Results segment # 1: Earl Armston (night)

Source height = 1.50 m

ROAD (0.00 + 48.03 + 0.00) = 48.03 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-30	0	0.48	68.57	0.00	-12.66	-7.88	0.00	0.00	0.00	48.03

Segment Leq : 48.03 dBA

Results segment # 2: Jessie Chen (night)

Source height = 1.50 m

ROAD (0.00 + 43.52 + 0.00) = 43.52 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.48	56.36	0.00	-8.69	-4.15	0.00	0.00	0.00	43.52

Segment Leq : 43.52 dBA

Total Leq All Segments: 49.35 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.42
(NIGHT): 49.35

STAMSON 5.0 NORMAL REPORT Date: 29-06-2026 11:06:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: blin.te Time Period: Day/Night 16/8 hours
Description: B1 indoor

Road data, segment # 1: Earl Armston (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Earl Armston (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.50 / 27.50 m
Receiver height : 1.50 / 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Earl Armston (day)

Source height = 1.50 m

ROAD (0.00 + 70.34 + 0.00) = 70.34 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	76.17	0.00	-4.37	-1.46	0.00	0.00	0.00	70.34

Segment Leq : 70.34 dBA

Total Leq All Segments: 70.34 dBA

Results segment # 1: Earl Armston (night)

Source height = 1.50 m

ROAD (0.00 + 63.54 + 0.00) = 63.54 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.48	68.57	0.00	-3.90	-1.14	0.00	0.00	0.00	63.54

Segment Leq : 63.54 dBA

Total Leq All Segments: 63.54 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 70.34
(NIGHT): 63.54

Filename: blin.te Time Period: Day/Night 16/8 hours
 Description: B2 indoor

Road data, segment # 1: Earl Armston (day/night)

 Car traffic volume : 28336/2464 veh/TimePeriod *
 Medium truck volume : 2254/196 veh/TimePeriod *
 Heavy truck volume : 1610/140 veh/TimePeriod *
 Posted speed limit : 80 km/h
 Road gradient : 1 %
 Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Earl Armston (day/night)

 Angle1 Angle2 : -90.00 deg -10.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 1 (Absorptive ground surface)
 Receiver source distance : 40.00 / 40.00 m
 Receiver height : 1.50 / 7.50 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

Segment # 1: Earl Armston (day)

 Source height = 1.50 m

ROAD (0.00 + 63.90 + 0.00) = 63.90 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-10	0.66	76.17	0.00	-7.07	-5.20	0.00	0.00	0.00	63.90

Segment Leq : 63.90 dBA

Total Leq All Segments: 63.90 dBA

Segment # 1: Earl Armston (night)

Source height = 1.50 m

ROAD (0.00 + 57.44 + 0.00) = 57.44 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	-10	0.48	68.57	0.00	-6.30	-4.82	0.00	0.00	0.00	57.44

Segment Leq : 57.44 dBA

Total Leq All Segments: 57.44 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 63.90
(NIGHT): 57.44

STAMSON 5.0 NORMAL REPORT Date: 29-06-2026 11:45:43
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: blin.te Time Period: Day/Night 16/8 hours
Description: B3 indoor

Road data, segment # 1: Earl Armston (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 80 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Earl Armston (day/night)

Angle1 Angle2 : -70.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 86.50 / 86.50 m
Receiver height : 1.50 / 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: Jessie Chen (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 40 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Jessie Chen (day/night)

```

-----
Angle1   Angle2           :    0.00 deg    45.00 deg
Wood depth           :           0          (No woods.)
No of house rows     :           0 / 0
Surface              :           1          (Absorptive ground surface)
Receiver source distance : 80.00 / 80.00 m
Receiver height       :    1.50 / 7.50 m
Topography           :           1          (Flat/gentle slope; no barrier)
Reference angle       :    0.00

```

Results segment # 1: Earl Armston (day)

Source height = 1.50 m

ROAD (0.00 + 58.64 + 0.00) = 58.64 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-70	0	0.66	76.17	0.00	-12.63	-4.89	0.00	0.00	0.00	58.64

Segment Leq : 58.64 dBA

Results segment # 2: Jessie Chen (day)

Source height = 1.50 m

ROAD (0.00 + 45.56 + 0.00) = 45.56 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	45	0.66	63.96	0.00	-12.07	-6.33	0.00	0.00	0.00	45.56

Segment Leq : 45.56 dBA

Total Leq All Segments: 58.85 dBA

Results segment # 1: Earl Armston (night)

Source height = 1.50 m

ROAD (0.00 + 52.62 + 0.00) = 52.62 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-70	0	0.48	68.57	0.00	-11.26	-4.69	0.00	0.00	0.00	52.62

Segment Leq : 52.62 dBA

Results segment # 2: Jessie Chen (night)

Source height = 1.50 m

ROAD (0.00 + 39.36 + 0.00) = 39.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	45	0.48	56.36	0.00	-10.76	-6.24	0.00	0.00	0.00	39.36

Segment Leq : 39.36 dBA

Total Leq All Segments: 52.82 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 58.85
(NIGHT): 52.82

STAMSON 5.0 NORMAL REPORT Date: 29-06-2026 11:03:45
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: alin.te Time Period: Day/Night 16/8 hours
Description: C1 OLA

Road data, segment # 1: Jessie Chen (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 40 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Jessie Chen (day/night)

Angle1 Angle2 : -90.00 deg 75.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 47.00 / 47.00 m
Receiver height : 1.50 / 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Jessie Chen (day)

Source height = 1.50 m

ROAD (0.00 + 54.14 + 0.00) = 54.14 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	75	0.66	63.96	0.00	-8.23	-1.58	0.00	0.00	0.00	54.14

Segment Leq : 54.14 dBA

Total Leq All Segments: 54.14 dBA

Results segment # 1: Jessie Chen (night)

Source height = 1.50 m

ROAD (0.00 + 47.71 + 0.00) = 47.71 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	75	0.48	56.36	0.00	-7.34	-1.31	0.00	0.00	0.00	47.71

Segment Leq : 47.71 dBA

Total Leq All Segments: 47.71 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.14
(NIGHT): 47.71

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